

(12) UK Patent Application (19) GB (11) 2 339 529 (13) A

(43) Date of A Publication 02.02.2000

(21) Application No 9815124.4

(22) Date of Filing 14.07.1998

(71) Applicant(s)

Gary Helliwell

**Wolds Farm, Lamin Gap Lane, Stanton on the Wolds,
NOTTINGHAM, NG12 5PJ, United Kingdom**

(72) Inventor(s)

Gary Helliwell

(74) Agent and/or Address for Service

Eric Potter Clarkson

**Park View House, 58 The Ropewalk, NOTTINGHAM,
NG1 5DD, United Kingdom**

(51) INT CL⁷

A47B 21/03 21/03 , A63F 13/08

(52) UK CL (Edition R)

A4L LAAJ LABB

(56) Documents Cited

GB 2311935 A

EP 0058125 A2

GB 2281200 A

US 5088420 A

GB 2168246 A

US 4646655 A

(58) Field of Search

UK CL (Edition Q) A4L

INT CL⁶ A47B 21/03 , A63F 9/22

Online: EPODOC, PAJ, WPI

(54) Abstract Title

Computer game desk

(57) A desk designed for convenient positioning of computer game playing apparatus including a computer console and peripherals such as a keyboard, steering wheel, pedals, joystick and hand controllers. The desk includes a shelf 10 adapted to receive a computer game console; a shelf 10 adapted to extend forward of the console shelf and receive a steering wheel or keyboard; and a base 40 adapted to receive and retain foot pedals beneath the steering wheel shelf. The desk is modular in design and thereby reconfigurable to suit the preferences and height of the user. The desk uses a series of detachable pillars to separate the shelves and the base.

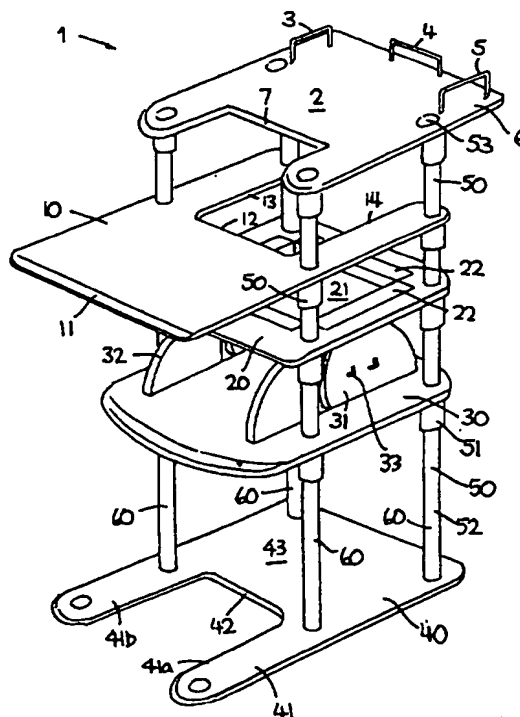


FIG. 1

GB 2 339 529 A

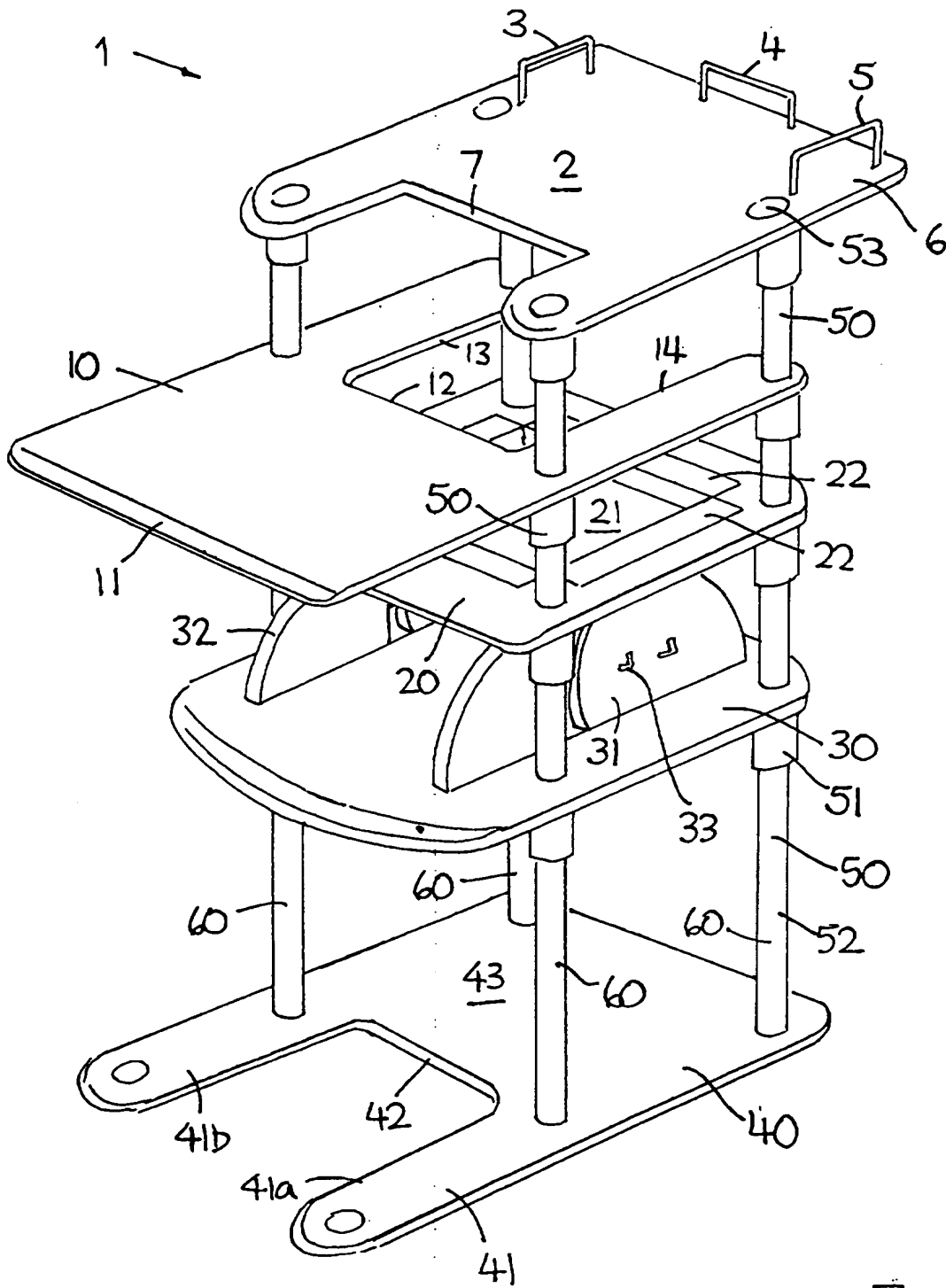


FIG. 1

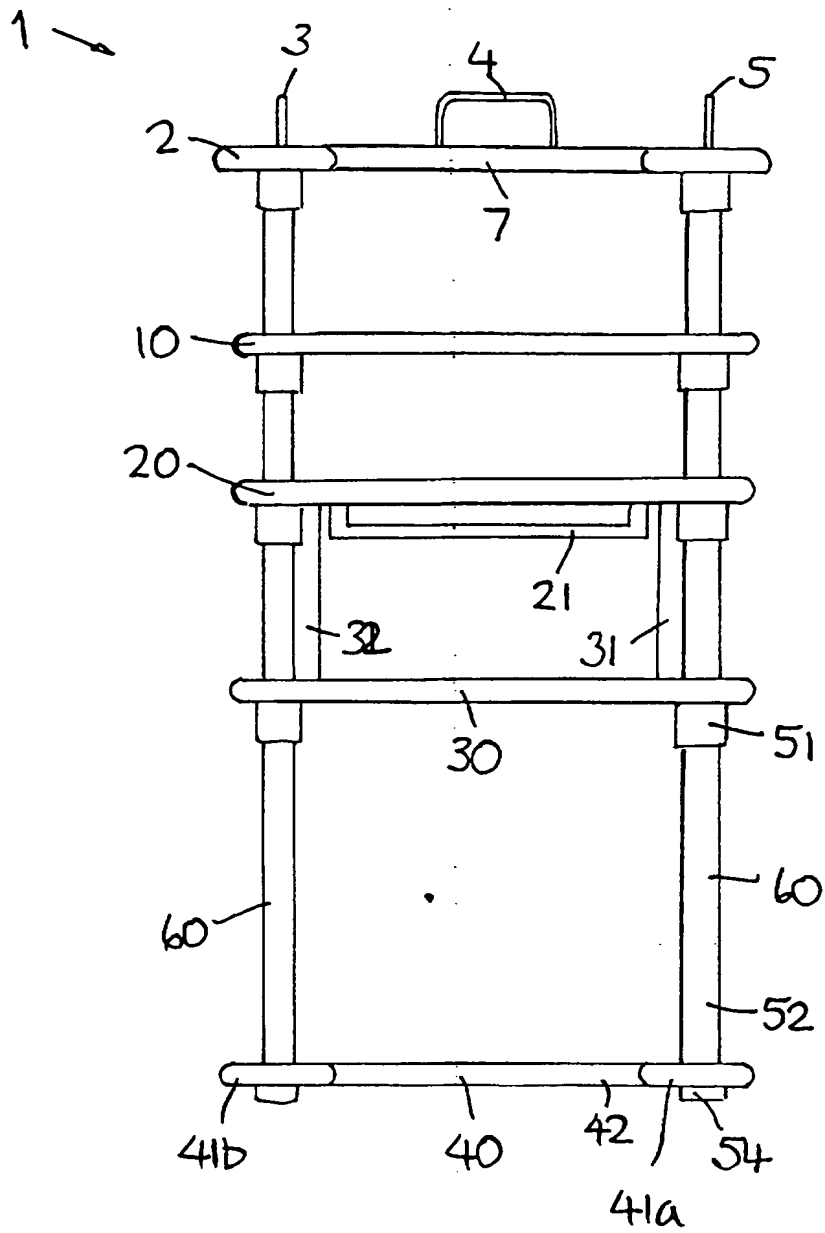


FIG. 2

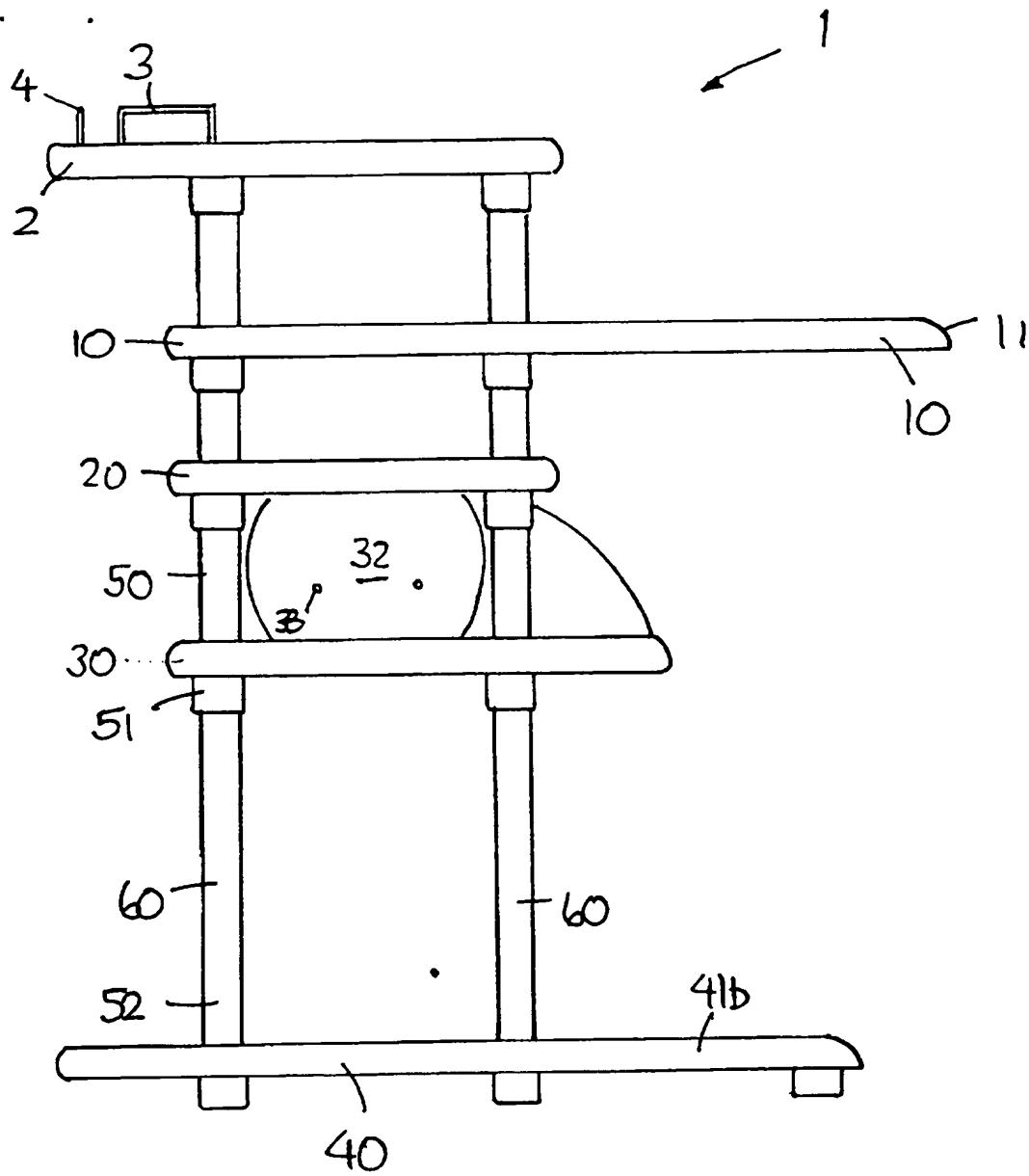


FIG. 3

1 ↘

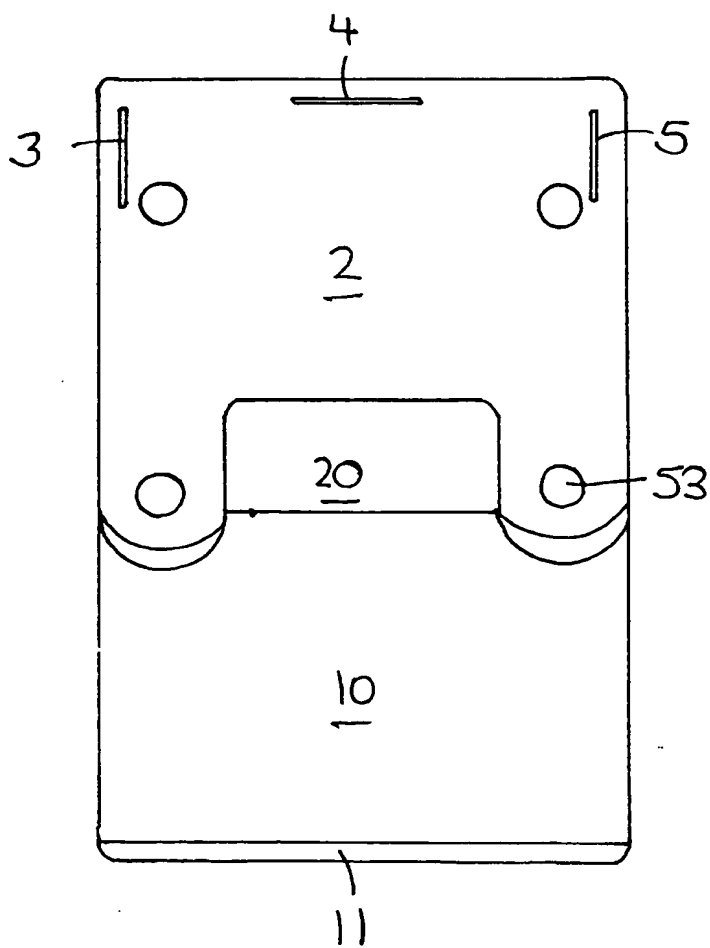


FIG. 4

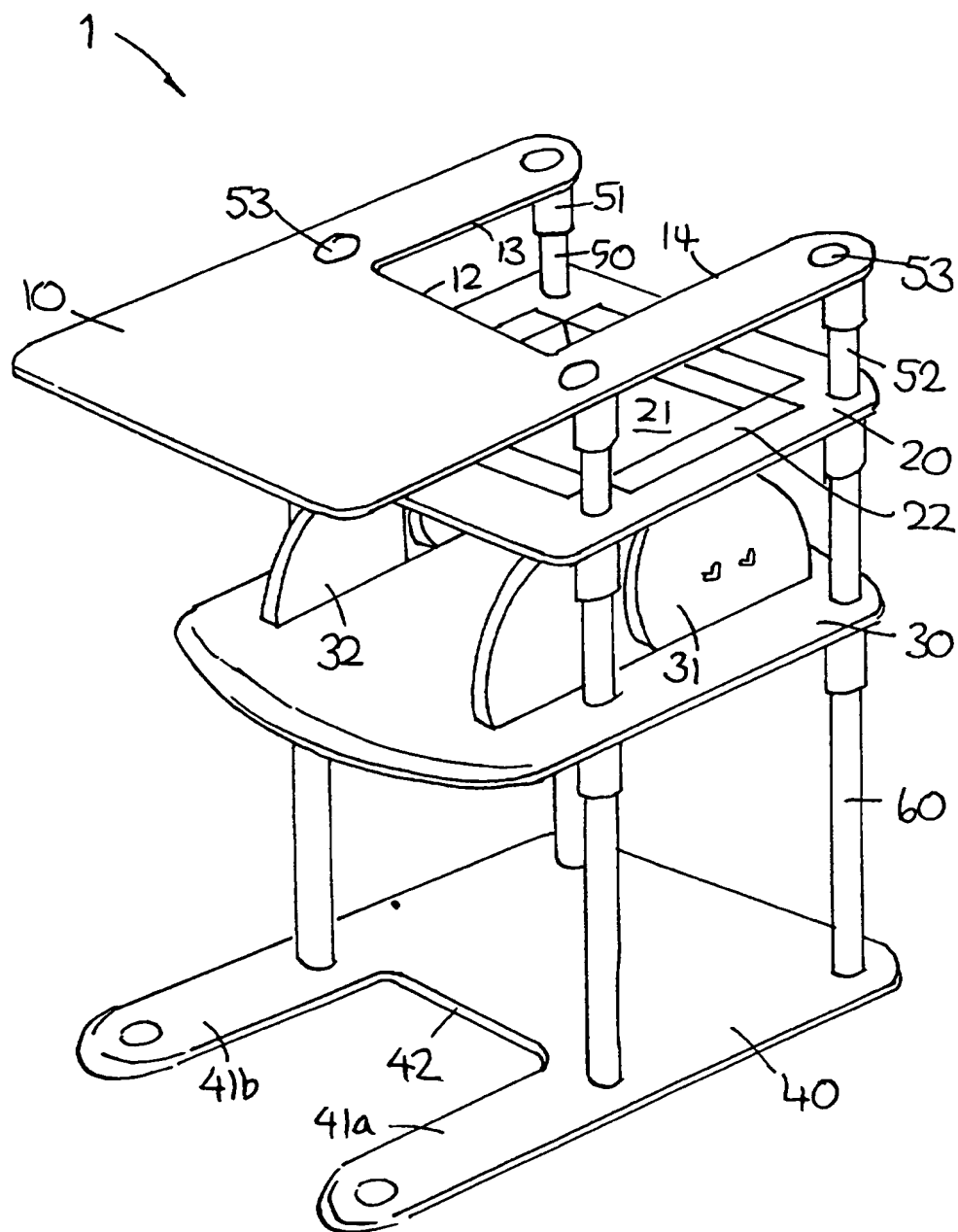


FIG. 5

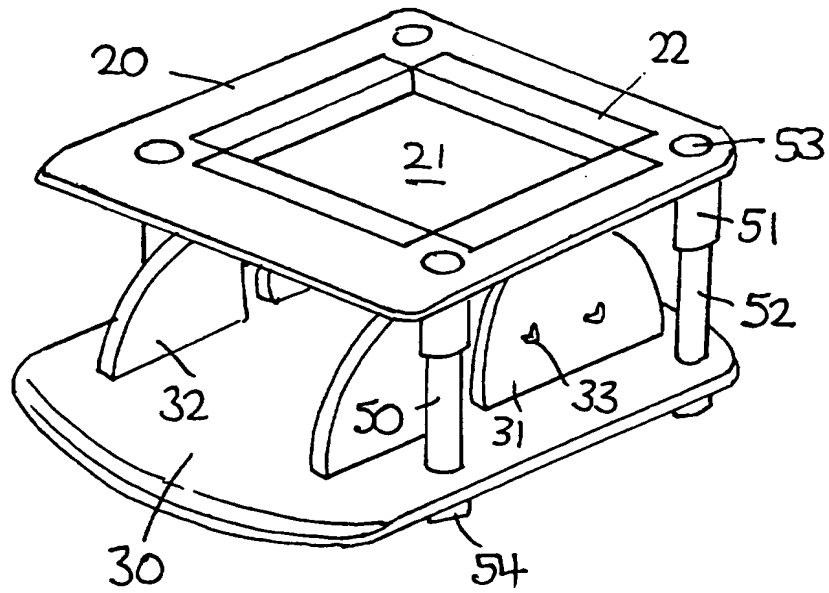


FIG. 6

COMPUTER GAME DESK

The present invention relates to furniture, and in particular to furniture customised for providing convenient positioning and use of items of computer equipment.

There are many prior art examples of office and domestic furniture having work surfaces, shelving and cupboard spaces specifically designed for holding items of computer equipment such as personal computers, video monitors, keyboards, printers and the like, while at the same time providing a useful working area for writing.

Such prior art furniture is often not ideal for computer equipment specifically designed for the playing of games. Many modern computer consoles are specifically adapted for game-playing activities and as such include a number of items of hardware such as a steering wheel, foot pedals, joystick controllers, keypads and the like which, for optimum use, need to be conveniently positioned for the user during game play.

A further problem is that such computer game equipment tends to be used by children and adults inevitably having a wide range of ages and heights, therefore making it difficult for everyone to make use of standard computer desk furniture.

In addition, many of the computer game consoles are relatively small items (when compared with personal computers) and in particular often need top loading access to change disks rather than front loading access, as usually found with personal computers. This makes customised shelving units for PC's less than ideal for such use.

These factors, and the general requirement for furniture to be reasonably compact and adaptable for use in a child's bedroom, for example, makes the prior art computer furniture less than convenient.

5

It is an object of the present invention to provide a computer game playing desk which is adapted to provide convenient positioning of a range of computer peripherals used specifically during game playing.

10 It is a further object of the present invention to provide a computer game playing desk which specifically provides for convenient storage of and access to a top-loading computer console, as well as storage for disks and computer peripherals.

15 It is a further object of the present invention to provide a computer game playing desk which is readily adaptable to suit a wide range of user heights, particularly to allow for growing children who may use the computer equipment.

20 According to one aspect, the present invention provides a computer game playing desk comprising:

a shelf adapted to receive a computer game console;

a shelf adapted to extend forward of the console shelf and receive a steering wheel or keyboard; and

25 a base adapted to receive and retain foot pedals beneath the steering wheel shelf.

According to another aspect, the present invention provides a computer game playing desk comprising:

a base;
a shelf adapted to receive a computer game console; and
a shelf adapted to extend forward of the console shelf and receive
a steering wheel or keyboard;

5 wherein the base, console shelf and keyboard shelf are each
separated from one another by a series of detachable pillars.

According to a further aspect, the present invention provides a computer
game playing desk comprising:

10 a shelf adapted to receive a computer game console in a recess
therein; and

 a shelf adapted to extend forward of the console shelf and receive
a steering wheel or keyboard;

 in which the console shelf lies below the steering wheel shelf and
15 the steering wheel or keyboard shelf includes a cut-away section towards
the rear to allow access to the top of the console shelf.

Embodiments of the present invention will now be described by way of
example and with reference to the accompanying drawings in which:

20

Figure 1 shows a front perspective view of a computer game
playing desk according to a presently preferred embodiment of the
present invention;

Figure 2 shows a front view of the desk of figure 1;

25 Figure 3 shows a left side view of the desk of figure 1;

Figure 4 shows a plan view of the desk of figure 1;

Figure 5 shows a front perspective view of the desk of figure 1
with video monitor shelf removed; and

Figure 6 shows a front perspective view of the disk shelf and console shelf of the desk of figure 1 in isolation.

With reference to the figures 1 to 4 a preferred embodiment of computer
5 game playing desk 1 is now described.

The desk 1 includes a top shelf 2 for receiving a video monitor, television set or other display device and will be referred to hereinafter as the monitor shelf 2.

10

In the preferred embodiment the monitor shelf 2 includes a retaining mechanism for preventing a video monitor from being inadvertently pushed off the back or sides of the desk, such as guard rails 3, 4, 5.

15 In the preferred embodiment the monitor shelf 2 includes a rear overhang portion 6 which extends backwards beyond the main body of the desk 1 to enable the monitor to be positioned at a suitable viewing distance from the user.

20 In the preferred embodiment the monitor shelf 2 includes a cut-away section at the front edge 7 thereof so as to allow access to a rear portion of a shelf below, as will be described later.

The desk 1 further includes a keyboard or steering wheel shelf 10 which
25 includes a front overhang portion 11 so that the leading edge of the shelf 10 extends forward of the main body of the desk 1. Throughout the present specification, the expressions "keyboard shelf" and "steering wheel" shelf will be understood to relate to the same item. The expression "main body of the desk" will be understood to define the

generally cuboid shape of the desk as approximately bounded by all of the leg pillars to be described hereinafter.

5 In the preferred embodiment, the keyboard shelf 10 includes a cut-away section at the rear thereof, defined by shelf edges 12, 13 and 14, such that at least a portion of the shelf 10 which resides within the main body of the desk 1 is removed to allow access to a rear portion of a shelf thereunder, as will be described later.

10 In a preferred embodiment (not shown), the steering wheel shelf 10 includes a retaining mechanism for holding a steering wheel onto the shelf. A exemplary mechanism would be a set of adhesive Velcro strips having one portion attached to the shelf 10 upper surface and the mating portion attached to the underside of the steering wheel. Alternatively,
15 many steering wheels come equipped with suction pads on their underside. In this case, the shelf 10 is preferably provided with a smooth impermeable upper surface such as plastics material or the like.

As an alternative to the cut-away section defined by edges 12, 13 and 14
20 at the rear of the keyboard shelf 10, the main portion of the shelf may be provided on runners to allow the shelf to be moved between a home position at which it resides mainly within the main body of the desk and a deployed position for game playing at which the most part extends forward of the main body of the desk 1.

25

The desk 1 further includes a shelf suitable for receiving a computer console or housing, hereinafter referred to as a console shelf 20. Most computer game consoles are relatively small and low profile when compared with a personal computer housing and the console shelf 20

preferably includes a recessed tray 21 for receiving the console so that it cannot be inadvertently pushed or pulled off the shelf.

5 In the preferred embodiment, the console shelf 20 provides a frame into which the tray 21 is dropped, being retained by lips 22 of the tray. The tray 21 is therefore interchangeable with other trays to suit various sizes and styles of computer game consoles. The tray 21 may include separate slots or recesses to receive small items such as memory cards.

10 Because many computer game consoles have a hinged lid on the top surface for loading and removing compact disks therefrom, it is then preferably to be able to access the console from above. In the preferred embodiment, this "top access" is facilitated by the cut-away sections of both the keyboard shelf 10 and the monitor shelf 2 described above.

15 In an alternative arrangement, at least a portion of the keyboard shelf 10 is provided on runners so that it can be pulled out from the main body of the desk 1 providing access to the console shelf 20 below.

20 In another alternative arrangement, the console shelf 20 is provided on runners so that it may be pulled out from the main body of the desk 1 to allow disk changing in the console.

25 The desk 1 also includes a storage shelf 30 which is preferably provided with side walls 31, 32 to retain compact disk cases standing on edge on the shelf. The shelf height is therefore preferably at least approximately 125 mm to accommodate standard format CD cases. The side walls 31, 32 preferably include hooks 33 (or spring clips or the like) on their outer surfaces to retain hand controllers or joysticks when not in use.

The desk 1 also includes a base 40 for supporting the desk on a floor. The base 40 preferably includes a suitable arrangement for receiving and retaining foot pedals used with many computer driving or flight simulation games.

In the preferred arrangement shown, the base includes a U-shaped front portion 41 in which the limbs 41a, 41b of the U-shape extend forward of the main body of the desk 1. The base of the U-shape is defined by a front recessed edge 42 of the base 40 against which the foot pedals may bear when in use. This prevents the foot pedals from creeping away from the user during game play, as tends to occur with unrestrained pedals.

The limbs 41a, 41b of the U-shape front portion also provide additional stability to the main body of the desk and prevent it being tipped forward during vigorous game play.

The main part 43 of the base 40 provides a useful storage area for the pedals when not in use, and also improves the rigidity of the leg structure, to be described.

Vertical separation of the shelves 2, 10, 20, 30 and base 40 described above is achieved by a suitable set of front, side and/or back supports. Although these may be side and rear panels, thereby forming enclosed shelving in a cupboard type arrangement, in the preferred embodiment, open shelves are formed by the use of a series of interchangeable pillars 50, as shown, providing a fully modular desk arrangement.

The pillars 50 may be of any suitable type. In one embodiment, each pillar 50 is preferably of a screw-in type having a male and a female end, and has a small diameter portion 52 and a larger diameter collar 51 at the upper end. Each shelf 2, 10, 20, 30 includes a hole or recess
5 therein to allow insertion of the small diameter portion 52 into a top surface of the shelf. The lower surface of the shelf receives or bears against the collar 51. A screw (not shown) on the small diameter end 52 of each pillar 50 engages with a thread on the collar end 51 of the next lower pillar (or *vice versa*) through a suitable hole in each shelf. A plug
10 53 may be provided for the upper most shelf to avoid any unfilled holes and unprotected screw threads.

The lowermost legs preferably screw directly into the base, or may be provided with foot stubs as shown in figure 2.

15

The pillars 50 may be provided in varying lengths so that the separation distance of the various shelves 2, 10, 20, 30 and base 40 can be adapted to a preferred configuration. In particular, for smaller children to be able to reach the foot pedals and properly hold the steering wheel while
20 viewing the monitor, the pillars which form legs 60 between the base and the lowest shelf 30 may be shorter.

Alternatively, the pillars 50 may be provided in unitary length, the separation of the various shelves 2, 10, 20, 30 and base 40 being
25 determined by the number of unit lengths of pillar being used intermediate each shelf.

Alternatively, selected ones, or all, of the pillars 50 may be adjustable in length, for example by being telescopic with a suitable locking

mechanism such that height adjustment of the shelves is possible without removing or detaching the pillars.

5 The fully modular nature of the desk means that the shelves may be assembled in a different order. For example, the console shelf 20 might be placed above the keyboard shelf 10, or even below the storage shelf 30. Still further, if the video monitor or television is, for example, already affixed to a wall on a bracket, or on a separate shelf, then the monitor shelf 2 can be dispensed with completely, as shown in figure 5.

10

If the full desk 1 configuration is not required at any particular time, selected parts of it can be used on a table top, for example the console shelf 20 and storage shelf 30 alone as shown in figure 6.

15 The desk described herein thereby provides for convenient positioning of a computer console together with various computer peripherals in such a way that games may be played by a user in a comfortable, ergonomically correct position which can be adjusted for varying sizes of user.

CLAIMS

1. A computer game playing desk comprising:
 - a shelf adapted to receive a computer game console;
 - 5 a shelf adapted to extend forward of the console shelf and receive a steering wheel or keyboard; and
 - a base adapted to receive and retain foot pedals beneath the steering wheel shelf.
- 10 2. A computer game playing desk according to claim 1 in which the base includes a substantially U-shaped front portion, the limbs of the U-shape extending forward of the main body of the desk to provide a foot pedal receiving recess.
- 15 3. A computer game playing desk according to claim 1 or claim 2 further including a shelf for receiving and retaining a video monitor situated above and behind the steering wheel shelf.
4. A computer game playing desk according to claim 1, claim 2 or
20 claim 3 in which the console shelf lies below the steering wheel shelf and the steering wheel shelf includes a cut-away section towards the rear to allow access to the top of the console shelf.
5. A computer game playing desk according to claim 4, dependent
25 from claim 3, in which the monitor shelf also includes a cut-away section toward the front thereof to allow access to the top of the console shelf.

6. A computer game playing desk according to any preceding claim in which the console shelf includes a removable recessed tray for receiving a computer console.
- 5 7. A computer game playing desk according to any preceding claim in which one of or both the console shelf and steering wheel shelf is moveable from a home position in which it is stored within the main body of the desk to an extended position in which it projects forward of the main body of the desk.
- 10 8. A computer game playing desk according to any preceding claim in which the desk is constructed in a modular fashion so that the order and distance of separation of the shelves can be varied.
- 15 9. A computer game playing desk according to any preceding claim in which the shelves are stacked separated from one another in the vertical dimension by a series of detachable pillars.
- 20 10. A computer game playing desk according to claim 9 in which the pillars are of various lengths to accommodate differing distances of separation between the shelves and the base.
- 25 11. A computer game playing desk according to claim 9 in which the pillars are of adjustable length.
12. A computer game playing desk comprising:
a base;
a shelf adapted to receive a computer game console; and

a shelf adapted to extend forward of the console shelf and receive a steering wheel or keyboard;

wherein the base, console shelf and keyboard shelf are each separated from one another by a series of detachable pillars.

5

13. A computer game playing desk according to claim 12 in which the pillars are of various lengths to accommodate differing distances of separation between the shelves and the base.

10 14. A computer game playing desk according to claim 12 in which the pillars are of adjustable length.

15 15. A computer game playing desk according to claim 12 in which the base includes a substantially U-shaped front portion, the limbs of the U-shape extending forward of the main body of the desk to provide a foot pedal receiving recess.

20 16. A computer game playing desk according to claim 12 further including a shelf for receiving and retaining a video monitor situated above and behind the steering wheel shelf.

25 17. A computer game playing desk according to any one of claims 12 to 16 in which the console shelf lies below the steering wheel shelf and the steering wheel shelf includes a cut-away section towards the rear to allow access to the top of the console shelf.

18. A computer game playing desk according to claim 17, dependent from claim 16, in which the monitor shelf also includes a cut-away

section toward the front thereof to allow access to the top of the console shelf.

19. A computer game playing desk according to claim 12 in which the
5 console shelf includes a recessed tray for receiving a computer console.

20. A computer game playing desk according to claim 12 in which
one of or both the console shelf and keyboard shelf is moveable from a
home position in which it is stored within the main body of the desk to
10 an extended position in which it projects forward of the main body of the
desk.

21. A computer game playing desk according to claim 12 in which the
desk is constructed in a modular fashion so that the order and distance of
15 separation of the shelves can be varied.

22. A computer game playing desk comprising:
a shelf adapted to receive a computer game console in a recess
therein; and
20 a shelf adapted to extend forward of the console shelf and receive
a steering wheel or keyboard;
in which the console shelf lies below the steering wheel shelf and
the steering wheel or keyboard shelf includes a cut-away section towards
the rear to allow access to the top of the console shelf.

25

23. A computer game playing desk substantially as described herein
with reference to the accompanying drawings.



Application No: GB 9815124.4
Claims searched: 1-11

Examiner: Neil Franklin
Date of search: 30 March 1999

INVESTOR IN PEOPLE

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.Q): A4L

Int Cl (Ed.6): A47B 21/03 A63F 9/22

Other: Online: EPODOC, PAJ, WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2 311 935A (QUINLAN) See table of Figure 1	1,3
X	GB 2 281 200A (LOWN) See figures & p5 lines 6-10	1,3
A	GB 2 168 246A (COUSINS) See table of Figure 2	
X	EP 0 058 125A2 (RAMOND) See table of Figure 1	1,7
X	US 5 088 420 (RUSSELL) See table of figures & column 3 lines 23-38	1,3,7,8
X	US 4 646 655 (ROBOLIN) See workstation of figures	1,3

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.